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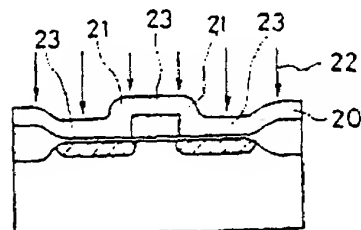
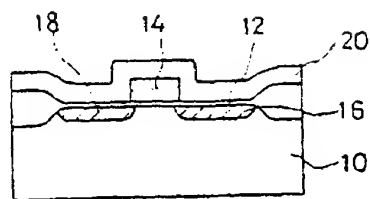
APPLICATION DATE : 21-11-86
APPLICATION NUMBER : 61276419

APPLICANT : CITIZEN WATCH CO LTD;

INVENTOR : TOIDA TAKASHI;

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TITLE : MANUFACTURE OF
SEMICONDUCTOR INTEGRATED
CIRCUIT DEVICE



ABSTRACT : PURPOSE: To flatten the stepped section of the surface of an silicon oxide film gently by irradiating the whole surface of the silicon oxide film, to which phosphorus is added, with excimer laser beams of a wavelength of 200nm or less and heating the whole surface of the silicon oxide film.

CONSTITUTION: When heat treatment at a high temperature of approximately 1000°C is executed, an inclination at the stepped section of a PSG film is made easy, but impurity atoms are further diffused and redistributed. When the PSG film 20 is irradiated with excimer laser beams 22 and heated as a method in which the impurity atoms are not redistributed, the PSG film 20 is made to reflow, and the inclination of the stepped section is flattened gently. Since excimer laser beams 22 are absorbed to the PSG film 20, excimer laser beams 22 do not reach to a semiconductor substrate as the lower layer of the PSG film 20, and redistribution by the rediffusion of the impurity atoms is not generated, thus acquiring a semiconductor integrated circuit device having high reliability.

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